14. SUSPENDED ANIMATION OF FISH OUT OF WATER FOR MANY HOURS

I give below an account of experiments carried out by me on common carp (*Cyprinus carpio*) being cultured at the Tata Hydro Electric Company's fish farm near Walwhan Lake at Lonavala.

On the 21st January, 1980 I purchased a fish (*Cyprinus carpio*) weighing about 1.25 kg and brought it home at 5.30 p.m. Since it could not be immediately cleaned it was kept in the refrigerator at 6.00 p.m. It was taken out for cleaning at about 8.00 p.m. and placed in a vessel under a tap. After about 15 minutes when its scales were being removed it was found to be alive.

When I was told about this incident, it reminded me of an article that had come in the *Reader's Digest* a few years back. It was about the bat (flying fox) which remained alive in the refrigerator for many days. So I decided to conduct some experiments on this species of fish.

Accordingly on the 25th January, 1980, a fish weighing about 250 g was brought at 5.30 p.m. and kept in a plastic bucket full of water. At 5.50 p.m. the water in the bucket was reduced to 5 litres. The temperature of the water was brought down by putting some ice cubes one by one. By 6.00 p.m. the fish was removed into a dry alluminium vessel and placed in the refrigerator. The vessel was then partially covered with a lid. For about 5 minutes the fish made efforts to jump and then quietened. At 10.00 p.m. after a period of 4 hours the vessel with the fish was taken out of the refrigerator. At this time it looked completely dead but it's eyes were very bright and its scales appeared fresh. Some water was poured into the vessel and it was watched carefully. For the first 10 minutes there was no sign of life in the fish. So two cups of warm water were added to increase the temperature of the water in the vessel. Within a few minutes two bubbles one after another were seen coming out of its gills. Later on slight movement of its gills could be seen. At this instance the fish was removed into a bucket full of fresh water. Its breathing rate went on increasing and it made efforts to move about. After half an hour the fish was swimming freely. Thus after an ordial of four hours without water in the refrigerator this fish regained its full vigour and vitality. Next day the fish was released back into the pond.

Subsequently, many experiments of similar type on the same species of fish were carried out. Every time the experiments were performed, the period of it's existence in the refrigerator was increased by half an hour. Finally it could be concluded that the common carp, (*Cyprinus carpio*) can remain without any water in the refrigerator for a period of 8 hours and survive when again released back into it's natural habitat.

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